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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,846	11/15/2001	Denise Gurer	3COM-2989.TDC.US.P	6875

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EXAMINER	
PUENTE, EMERSON C	

ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/998,846	GURER ET AL.	
	Examiner	Art Unit	
	Emerson C. Puente	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is made **Non-Final**. Claims 1-36 have been examined

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 9, 10, 19-32, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,872,911 of Berg in further view of US Patent No. 6,289,379 of Urano et al. referred hereinafter "Urano".

In regards to claim 1 and 27, Berg discloses:

receiving a plurality of fault data pertaining to said data network (see column 1 lines 55-67);

filtering said plurality of fault data to obtain a core of fault data (see column 1 lines 55-67);

analyzing said core of fault data to identify a fault associated with said core of fault data without requiring historical data (see column 2 lines 64-67).

However, Berg fails to explicitly disclose:

requesting additional fault data from said data network when said core of fault data is insufficient to identify faults,

receiving said additional fault data,

analyzing said additional fault data to identify a fault associated with said core of fault data without requiring historical data.

Urano discloses collecting more detailed information upon detection of an abnormal condition to prove the cause of a fault (see column 5 lines 36-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Berg and Urano to collect more detailed information upon detection of an abnormal condition to prove the cause of a fault, thus indicating requesting additional fault data from said data network when said core of fault data is insufficient to identify faults, receiving said additional fault data, and analyzing additional fault data to identify a fault associated with said core of fault data without requiring historical data. A person of ordinary skill in the art at the time of the invention would have been motivated because Berg discloses collecting data to determine the cause of a fault (see column 1 lines 60-65), and collecting more detailed information upon detection of an abnormal condition, as per teaching of Urano, is a known means which enables determining and verifying the cause of a fault (see column 5 lines 36-46).

In regards to claim 2 and 28, Berg discloses implementing a set of rules for filtering said plurality of fault data (see column 3 lines 50-67 and column 4 lines 1-23 and 54-67).

In regards to claim 3 and 29, Berg discloses eliminating redundant fault data in said plurality of fault data to obtain said core of fault data (see column 4 lines 40-50).

In regards to claim 4 and 30, Berg discloses correlating said plurality of fault data into recognized patterns of data comprising said core of fault data (see column 4 lines 27-32).

In regards to claim 5 and 31, Berg discloses wherein the plurality of fault data is taken from a group consisting of: alarms; events; remote monitoring (RMON)- 1 data; and RMON-2 data (see column 3 lines 15-30)

In regards to claim 6 and 32, Berg discloses determining whether said fault is due to a broken link or congestion in said data network (see column 10 lines 1-5).

In regards to claim 9 and 35, Berg discloses displaying the location of said fault and displaying a cause of said fault (see column 5 lines 50-60).

In regards to claim 10 and 36, Berg discloses wherein said fault data includes performance data from said data network (see column 3 lines 15-20).

In regards to claim 19, Berg discloses

a plurality of subnetworks that generate a plurality of fault data, each of said plurality of subnetworks comprising network components that are coupled together via a distributing component (see figure 3 and column 8 lines 17-25);

a plurality of performance managers coupled to said plurality of subnetworks for monitoring said plurality of subnetworks for said plurality of fault data for filtering said plurality of fault data, each of said plurality of network performance managers coupled to and associated with one of said plurality of subnetworks (see figure 3 and column 1 lines 55-67 and column 8 lines 17-47);

a single network management station coupled to each of said plurality of performance managers for analyzing said plurality of fault data that is filtered to identify faults and isolate

sources of said faults, without requiring historical data about said data network (see figure 3 and column 2 lines 64-67 and column 8 lines 17-47).

However, Berg fails to explicitly disclose:

requesting additional fault data from said data network when said core of fault data is insufficient and analyzing said additional fault data to identify faults to isolate source of said faults.

Urano discloses collecting more detailed information upon detection of an abnormal condition to prove the cause of a fault (see column 5 lines 36-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Berg and Urano to collect more detailed information upon detection of an abnormal condition to prove the cause of a fault, thus indicating requesting additional fault data from said data network when said core of fault data is insufficient and analyzing said additional fault data to identify faults to isolate source of said faults. A person of ordinary skill in the art at the time of the invention would have been motivated because Berg discloses collecting data to determine the cause of a fault (see column 1 lines 60-65), and collecting more detailed information upon detection of an abnormal condition, as per teaching of Urano, is a known means which enables determining and verifying the cause of a fault (see column 5 lines 36-46).

In regards to claim 20, Berg discloses

wherein said network components are computers (see column 11 lines 23-28).

In regards to claim 21, Berg discloses

wherein said distributing component is a switch (see figure 3 and column 8 lines 27-35)

In regards to claim 22, Berg discloses

wherein said plurality of fault data is management information base (MIB) information that is generated by said network (see column 3 lines 15-30).

In regards to claim 23, Berg discloses

a rule set that is implemented by said network management station for analyzing said plurality of fault data and said additional fault data that are filtered to identify said faults and isolate said sources of said faults (see column 4 lines 53-62 and column 5 lines 20-30).

In regards to claim 24, Berg discloses

a rule set that is implemented by each of said plurality of performance managers for filtering said plurality of fault data and said additional fault data (see column 3 lines 50-67 and column 4 lines 1-23).

In regards to claim 25, Berg discloses

wherein said plurality of fault data includes performance data from said data network (see column 3 lines 15-20)

In regards to claim 26, Berg discloses

wherein each of said plurality of performance managers is self diagnosing network performance manager (SDNNPM). Berg discloses a system which diagnosis the data to determine the fault and service impact of a telecommunication network (see column 1 lines 38-64), indicating a self diagnosing network. Berg further discloses wherein the system includes cell site controller responsible for monitoring cell site (see column 8 lines 16-20), indicating self diagnosing network manager. Examiner maintains his rejection.

Claims 7 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Berg in view of Urano and in further view of US Patent No. 6,654,914 of Kaffine et al. referred hereinafter "Kaffine".

In regards to claim 7 and 33, Berg in view of Urano discloses:

determine a location of said broken link, if said fault is due to a broken link (see column 5 lines 55-60).

However, Berg fails to disclose implementing a ping walk through said data network.

However, Kaffine discloses using pinging to determine causes of faults (see column 4 lines 1-5 and column7 lines 30-31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use pinging to determine a cause of the fault. A person of ordinary skill in the art at the time of the invention would have been motivated because Berg discloses determine locations of the fault (see column 5 lines 55-60) and pinging is known and used method for determining locations of faults, as per teachings of Kaffine (see column 4 lines 1-4 and column 7 lines 30-31).

Claims 8 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Berg in view of Urano and in further view of US Patent No. 6,304,900 of Cromer et al. referred hereinafter "Cromer".

In regards to claim 8 and 34, Berg in view of Urano fails to disclose isolating a source of said fault, if said fault is due to said congestion in said data network.

However, Cromer discloses identifying a source of said fault if said fault is due to congestion in said data network (see column 3 lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to isolate a source of said fault, if said fault is due to congestion in said data network. A person of ordinary skill in the art at the time of the invention would have been motivated because Berg discloses analyzing network data to isolate source of faults in a network, and Cromer discloses analyzing a network data to isolate source of faults in a network due to congestion in the data network (see column 3 lines 55-65).

Claims 11-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg in view of Cromer, Kaffine, and Urano.

In regards to claim 11, Berg discloses:

receiving a plurality of fault data pertaining to said data network (see column 1 lines 55-67)

filtering said plurality of fault data to eliminate extraneous data down to a core of fault data (see column 1 lines 55-67)

determining whether said fault data is due to a broken link or congestion in said data network without requiring historical data about said data network (see column 2 lines 64-67).

determinine a location of said source, if said fault data is due to a broken link (see column 5 lines 55-60).

However, Berg fails to disclose:

requesting additional fault data from said data network when said core of fault data is insufficient to identify faults and receiving said additional fault data.

performing a ping walk to isolate a cause and source of said core of fault data and additional fault data.

using deductive reasoning to isolate and identify said source of said core of fault data and additional fault data, if said core of fault data and additional fault data is due to said congestion.

Urano discloses collecting more detailed information upon detection of an abnormal condition to prove the cause of a fault (see column 5 lines 36-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Berg and Urano to collect more detailed information upon detection of an abnormal condition to prove the cause of a fault, thus indicating requesting additional fault data from said data network when said core of fault data is insufficient to identify faults and receiving said additional fault data. A person of ordinary skill in the art at the time of the invention would have been motivated because Berg discloses collecting data to determine the cause of a fault (see column 1 lines 60-65), and collecting more detailed information upon detection of an abnormal condition, as per teaching of Urano, is a known means which enables determining and verifying the cause of a fault (see column 5 lines 36-46).

Furthermore, Kaffine discloses using pinging to determine causes of faults (see column 4 lines 1-5 and column 7 lines 30-31), indicating performing a ping walk to isolate a cause and source of said core of fault data and additional fault data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use pinging to determine a cause of the fault. A person of ordinary skill in the art at

the time of the invention would have been motivated because Berg discloses determine locations of the fault (see column 5 lines 55-60) and pinging is known and used method for determining locations of faults, as per teachings of Kaffine (see column 4 lines 1-4 and column 7 lines 30-31).

Furthermore, Cromer discloses identifying a source of said fault if said fault is due to congestion in said data network (see column 3 lines 55-65), indicating isolating and identifying said source of said core of fault data and additional fault data using deductive reasoning, if said fault is due to said congestion in said data network.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to identifying a source of said fault if said fault is due to congestion in said data network. A person of ordinary skill in the art at the time of the invention would have been motivated because Berg discloses analyzing network data to isolate source of faults in a network, and Cromer discloses analyzing a network data to isolate source of faults in a network due to congestion in the data network (see column 3 lines 55-65).

In regards to claim 12, Berg discloses:

eliminating redundant fault data in said plurality of fault data to obtain said core of fault data (see column 4 lines 40-50).

In regards to claim 13, Berg discloses:

correlating said plurality of fault data into a recognized pattern of data forming said core of fault data (see column 4 lines 27-32).

In regards to claim 14, Kaffine discloses

sending a ping signal to each of a plurality of addresses in said data network and determining which addresses are unreachable addresses to determine a location of said link in said data network (see column 4 lines 1-4 and column 7 lines 30-31).

In regards to claim 15, Cromer discloses:

monitoring said data network to determine traffic data (see column 3 lines 55-65);

analyzing said traffic data using said deductive reasoning to isolate said source and identify said fault (see column 3 lines 55-65)

In regards to claim 17, Urano discloses querying said data network for additional fault data if said core of fault data is insufficient to identify said fault (see column 2 lines 25-30).

In regards to claim 18, Berg discloses correcting said fault (see column 6 lines 4-5).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg in view of Cromer, Kaffine, and Urano and in further view of US Patent No. 5,936,940 of Marin referred hereinafter "Marin".

In regards to claim 16, Berg in view of Kaffine, Cromer, and Urano fails to disclose:

determining queue link in network device;

determining delay over a path in said data network; and

determining load of traffic over said data network;

However, Marin discloses determining queue link in network device, determining delay over a path in said data network, and determining load of traffic over said data network (see column 7 lines 5-22).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine queue link in network device, determine delay over a path in said data network, and determine load of traffic over said data network A person of ordinary skill in the art at the time of the invention would have been motivated because Cromer discloses detecting congestion in a network (see column 3 lines 55-65) and determining queue link in network device, determining delay over a path in said data network, and determining load of traffic over said data network, is a known method for determining congestion in a network, as per teachings of Marin (see column 7 lines 1-22).

Response to Arguments

Applicant's arguments filed November 14, 2005 have been fully considered but they are not deemed to be persuasive.

In regards to applicant's argument "Claims 1 and 27 distinguish over Berg by at least reciting analyzing the core of fault data 'without requiring historical data about said data network'. Berg differs from Claims 1 and 27 in that Berg necessarily requires historical data about the network in order to analyze the data. As such, Berg teaches away from analyzing the core of fault data without requiring historical data," (see page 12 of arguments) examiner respectfully disagrees.

Berg discloses assessing/analyzing the fault data to determine the actual service impact, which doesn't require historical data about the network (see column 2 lines 64-67). Examiner maintains his rejection.

In response to applicant's argument "Therefore, not only the combination of Berg and Urano fails to teach analyzing data "without requiring historical data," but the combination also fails to teach "requesting additional fault data...when said core of fault data is insufficient," (see page 13 of arguments) examiner respectfully disagrees.

Urano discloses collecting more detailed information upon detection of an abnormal condition to prove the cause of a fault (see column 5 lines 36-46), indicating requesting additional fault data from said data network when said core of fault data is insufficient to identify faults, as claimed. Examiner maintains his rejection.

In response to applicant's argument "Claim 3 and 29 distinguish over Berg by at least reciting 'eliminating redundant fault data'. Berg does not disclose eliminating redundant fault data but is instead directed to reducing the volume by type of equipment, by the severity level of the alarm, and by priority level regardless of determination of redundancy"(see page 14 of arguments), examiner respectfully disagrees.

Berg further discloses knowing the occurrence of a fault in equipment that triggers additional alarms in another equipment allows the method to ignore the additional alarms caused by the other equipment, which results in further reduction of the fault data (see column 4 lines 40-48), indicating eliminating redundant fault data. Examiner maintains his rejection

In response to applicant's argument "Claim 5 and 31 distinguish over Berg because Berg does not disclose nor suggest events RMON-1 data or RMON-2 data but is rather directed to alarm data, equipment/network configuration, and performance data such as call traffic,"(see page 14 of arguments), examiner respectfully disagrees.

The claim limitation cites "wherein said plurality of fault data is taken from a group consisting of: alarms, events, RMON-1 data and RMON-2 data." Berg discloses collected data can be fault data, which normally indicates the status of equipment comprising the telecommunication network, such as alarm data (see column 3 lines 15-20), thus meeting the claim limitation. Examiner maintains his rejection.

In response to applicant's argument "Berg does not disclose nor suggest 'determining whether said fault is due to a broken link or congestion'," (see page 15 of arguments), examiner respectfully disagrees.

Berg discloses repairing a faulty network segments, indicating a broken link (see column 10 lines 1-5). Examiner maintains his rejection.

In response to applicant's argument "Berg does not disclose nor suggest displaying the cause of the fault but is rather directed to displaying the fault data," (see page 15 of arguments), examiner respectfully disagrees.

Berg discloses displaying the fault data (see figure 5 line 53). He further states the fault data could be alarm data that indicates the presence of equipment failure (cause of said fault) (see column 3 lines 18-21), indicating displaying cause of said fault.

In response to applicant's argument "Berg does not disclose a rule for analyzing fault data," (see page 16 of arguments) examiner respectfully disagrees.

Berg further discloses correlation of filtered data is performed in accordance with a set of logical rules (see column 4 lines 54-56). Berg further discloses after correlating step, determining the actual service impact on the telecommunication network (see column 5 lines 22-25). The correlation of filtered data and the determining the actual service impact could together

be interpreted as the claimed "analyzing said plurality of fault data". Since the correlating is done in accordance with a set of rules, the analyzing is at least partially done using a rule set. Examiner maintains his rejection.

In response to applicant's argument "Berg does not disclose or suggest a self diagnosing network manager but is rather directed to a controller responsible for monitoring its cell site," (see page 16-17 of arguments), examiner respectfully disagrees.

Berg discloses a system which diagnosis the data to determine the fault and service impact of a telecommunication network (see column 1 lines 38-64), indicating a self diagnosing network. Berg further discloses wherein the system includes cell site controller responsible for monitoring cell site (see column 8 lines 16-20), indicating self diagnosing network manager. Examiner maintains his rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emerson C. Puente whose telephone number is (571) 272-3652. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12/29/05